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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,265	03/18/2002	Hisashi Isaka	2002_0382A	5123
513	7590	08/18/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			ROBERTSON, JEFFREY	
2033 K STREET N. W.				
SUITE 800				
WASHINGTON, DC 20006-1021				
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,265

Applicant(s)

ISAKA ET AL.

Examiner

Jeffrey B. Robertson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-43 is/are pending in the application.
- 4a) Of the above claim(s) 13-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 31-43 are objected to because of the following informalities: for claim 31, the first word of the claim should be changed to "A", since claim 31 is the first independent claim to identify the polyorthoesters. For claim 32, "Y'" should be changed to "Y¹" since there is no Y' in claim 31. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 31-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK 1,128,963.

For claim 31, the reference teaches polyorthoesters that can be prepared by reacting a lower alkyl orthoester with polyhydric alcohol followed by reacting with a different polyhydric alcohol. See page 4, line 42 through page 5, line 10. At page 5, lines 5-10, polyols that include alpha and beta glycols and pentaerythritol are exemplified. For claims 32, 33, 42, and 43, although the specific formulas (IV) and (V) are not set forth in the reference where n is an integer of 3-40, the use of pentaerythritol, C(CH₂OH)₄, (FW=136) would give rise to polyorthoesters that are within the definition of claim 31, where n=4. Note that the groups set forth in structures VI and

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X of the reference correspond to the specific orthoester-derived ring structures of formulas (IV) and (V).

For claims 34, 37, 38, 40, and 41, as suggested by the reference, it would have been obvious to use two different polyols such as ethylene glycol and pentaerythritol, both exemplified in the reference, in the two-step reaction process in order to obtain polyorthoesters. For claims 35 and 36, the reference teaches methyl orthoacetate as the orthoester. For claim 39, the reference also teaches the use of neopentyl glycol.

Response to Arguments

4. Applicant's arguments filed 6/3/04 have been fully considered but they are not persuasive. With respect to the UK 1,128,963 reference, applicant argues that polyorthoesters having 3-40 orthoester-derived ring structures per molecule and the polyesters of formulas (IV) and (V) as defined in claim 31. However, as pointed out above in the statement of the rejection, the examiner disagrees. Through the use of pentaerythritol, the reference suggests structures having 3-40 orthoester-derived ring structures per molecule. In addition, the groups set forth in structures VI and X of the reference correspond to the specific orthoester-derived ring structures of formulas (IV) and (V). Therefore, UK 1,128,963 still applies to the current claims. JP 2000-199936 has been removed as prior art as a result of the translation of the priority documents provided by applicant. The Helwing reference no longer applies as a result of applicant's amendments to the claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

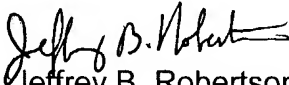
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR